

Date: Fri, 19 Nov 93 12:42:22 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1364
To: Info-Hams

Info-Hams Digest Fri, 19 Nov 93 Volume 93 : Issue 1364

Today's Topics:

 20M DIPOLE ON 80M
 A/D for DSP
 Amateur Class -Local)
 Don't pick on Coffman >> Gary Bashing!
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 Electronic Keyer Kit
 FCC Running in High Gear: Are VECs Also?
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 FT727 Schematic
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 Mods for Yaesu FT-530
 OSU Amateur Radio Club Meeting Tonight 11/3
 Radio Shack frequency counter
 Radio Shack HTs (2 msgs)

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Fri, 12 Nov 93 17:26:15
From: dog.ee.lbl.gov!agate!apple.com!amd!netcomsv!lavc!
lawrence.goodwin@network.ucsd.edu
Subject: 20M DIPOLE ON 80M
To: info-hams@ucsd.edu

N> I agree with Al and everyone promoting ladder-line over coax on HF.
N> One reason for using ladder-line is very low losses even with very
N> high SWRs. But remember with very high SWRs, there can be some very

N> high voltages. One night the cat was playing with my ladder-line as
N> I started to tune up on CW. As I keyed down, the cat let out a squeal,
N> jumped four feet in the air, left the room, and never entered the
N> shack again. 600 watts into 3000 ohms gives around 4000 volts peak
N> to peak so be sure to take reasonable precautions. There is quite
N> a field very close to the transmission line which falls off to a
N> negligible value a few inches away IF THE CURRENTS ARE BALANCED as they
N> should be. This is normal and not considered to be "RF in the shack".

N> 73, Cecil, kg7bk@indirect.com (I do not speak for Intel on Internet)

Hmnn....while I am certainly not in favor of cruelty to animals, I must
confess that the "cat....never entered the shack again" part of that
story sounds like another PLUS for ladder-line!

73 de Larry, KC6WOG

Date: 16 Nov 1993 14:59:04 GMT
From: munnari.oz.au!spool.mu.edu!howland.reston.ans.net!math.ohio-state.edu!
news.acns.nwu.edu!casbah.acns.nwu.edu!rdewan@network.ucsd.edu
Subject: A/D for DSP
To: info-hams@ucsd.edu

In article <CGKE7K.F4A@ncifcrf.gov>, Joe Mack <mack@fcs260c.ncifcrf.gov> wrote:
>In article <931115151801_1@ccm.hf.intel.com> Cecil_A_Moore@ccm.hf.INTeL.COM
(Cecil A Moore) writes:

>>

>>Text item: Text_1

>>

>>In the Nov QST, page 79, some specs are given for the TRFT-550
>>Backpacker II transceiver. The blocking dynamic range is 100 db
>>and the two-tone intermod distortion dynamic range is 81 db. Is
>>this enough information to answer the following question?

>>

>>If one were trying to do some state-of-the-art Digital Signal
>>Processing on the audio from this direct-conversion receiver, how
>>many bits of A/D would one need?

>>

>>Thanks and 73, Cecil, kg7bk@indirect.com (I do not speak for Intel)
>I think the answer is simple and you probably know it already - for 100db
>ie 10b its $10 \times \log(10 \text{ to base } 2)$.

While the dynamic range is an useful indicator of the selectivity of
the receiver, it does not have to be the outer of limit of the range
over the receiver is useful. Some options are:

- i) From MDS (minimum discernible signal power level) to the power at which you might cause damage to (any stage of) the receiver.
- ii) From the MDS to the 3rd order intercept point - the power level at which the 3rd order products are as strong as the signal, making it impossible to tell them apart. But this begs the question: At what spacing of the tones will you determine the intercept point?
- iii) From the MDS to the point at which a preset level of gain compression (is 1db a reasonable hurdle?) takes place when a signal is injected 20 Kcs (or some other spacing?) from the signal being detected.
- iv) From MDS to the the point at which the 2nd order product (image) or any other mixing product other than the desired one reaches a preset level.

My choice: The power level at my receiver terminal induced by NN9G (a QRO maven who lives 200 yards from my house) working split, up 3kcs, that prevented me from copying 9M0S, a station that he and I were trying to work a while ago.

Of course, all this assumes that non-linear elements such as AGC, variable gain etc are absent.

And in addition to the above: you would need a few bits (8?) for representing the signal at MDS and some more to reduce quantization/sampling errors using reasonable filters.

By my calcualtions:

144 db range:	about	24 bits	
signal representation at MDS	at least	8 bits	(would be higher for IF)
head room to reduce errors	(how much?)	8 bits	

		40 bits	

Wow. I think I will go and read up on AGC.

Rajiv
aa9ch
r-dewan@nwu.edu

Date: Tue, 16 Nov 93 08:39:00 -0600
From: elroy.jpl.nasa.gov!swrinde!menudo.uh.edu!nuchat!cld9!mario.campos@ames.arpa
Subject: Amateur Class -Local)
To: info-hams@ucsd.edu

Quoting SHERI.RITCHIE@EABBS.UUCP to ALL concerning Amateur Class -Local):

```
+-- SHERI.RITCHIE@EABBS.UUCP to ALL -----+
|
|If anyone out there knows where an amateur radio class close to Hayward,|
|CA is, let me know. I'd like to get in on the beginning of a class      |
+-----+
```

Go to or call HRO (Ham Radio Outlet) in Oakland at 2210 Livingston St., PH# 510-534-5757 or Sunnyvale @ 510 Lawrence Expwy., Ph# 408-736-9496.

They usually have posted on their bulletin board the latest info posted on classes or Ham Club meetings in the area. If you call ask the ham on the other end what info you're looking for. Good luck!

Message written at 8:24am, on Tuesday, November 16, 1993.

* Apex v4 * The best cure for insomnia is to get a lot of sleep.
* mario.campos@nitelog.com - N6ALS@K6LY.#NOCAL.CA.USA.NA
* [R2.00o] * Usenet * Nitelog BBS * Monterey CA * 408-655-1096

Date: 18 Nov 93 11:07:07 CST
From: equalizer!timbuk.cray.com!hemlock.cray.com!andyw@network.ucsd.edu
Subject: Don't pick on Coffman >> Gary Bashing!
To: info-hams@ucsd.edu

In article <2ccn6i\$g4k@crncis1.unl.edu>, mcduffie@unlinfo.unl.edu (Gary McDuffie Sr) writes:

> Sorry for all the blank lines in this but my reader isn't allowing a
> followup, saying I'm posting less than what I'm commenting on. This is
> my fourth attempt!! Does anyone know a good cure?

Delete some of the stuff you quoted. Just include enough to get the gist across, we can always go back and read the original you know..

Of course, I could just complain about any moron being able to sit down in front of a newsreader, but I'll refrain :-)

> [lotsa quoted stuff deleted...]

--

andyw N0REN/G1XRL

andyw@aspen.cray.com Andy Warner, Cray Research, Inc. (612) 683-5835

Date: 16 Nov 1993 03:04:33 GMT
From: usc!wupost!csrcn1.unl.edu!unlinfo.unl.edu!mcduffie@network.ucsd.edu
Subject: DSP units
To: info-hams@ucsd.edu

dearnshaw@worldbank.org (Darrell Earnshaw) writes:

>We have a NIR-10 at work's club station, and I'm not overly impressed! I
>personally wouldn't pay the \$300+ for this unit. The NIR-10 is okay for CW and
>badnpass applications, but the "white noise" reduction leaves a lot to be
>desired.

>-- Darrell

I ran the NIR-10 right along side the DSP-9 from Timewave, through an
A/B switch, and couldn't believe they get double the money for the
NIR-10. For my operating, the DSP-9 outperformed the NIR-10 most of
the time. Only on rare occasion could I see an advantage to the
NIR-10. I compared them for just over a month of daily operation.

For what it's worth...

73, Gary

Date: 15 Nov 93 15:21:32 -0700
From: nntp.ucsb.edu!library.ucla.edu!agate!boulder!buckie.ucha!mrtnt.ntrs.com!
tntvax.ntrs.com!rs2@network.ucsd.edu
Subject: DSP units
To: info-hams@ucsd.edu

In article <1993Nov15.144611.23215@worldbank.org>, dearnshaw@worldbank.org
(Darrell Earnshaw) writes:

> We have a NIR-10 at work's club station, and I'm not overly impressed! I
> personally wouldn't pay the \$300+ for this unit. The NIR-10 is okay for CW and
> badnpass applications, but the "white noise" reduction leaves a lot to be
> desired.

>
> -- Darrell
>

I returned my NIR-10 and got a refund from the manufacturer. From
what I see, I think I would prefer the Timewave unit, but I want to be sure I'm
getting the latest EPROM's

de Richard, W9RS

Date: Sat, 13 Nov 1993 02:21:54 GMT
From: dog.ee.lbl.gov!agate!doc.ic.ac.uk!pipex!sunic!psinntp!psinntp!gdstech!
gdstech!bat@network.ucsd.edu
Subject: Electronic Keyer Kit
To: info-hams@ucsd.edu

A few years ago, there was an article in QST about the CMOS Super Keyer II. I bought the kit from Idiom Press, and put it together in a few hours. It's a 1 chip microprocessor, and you just add some resistors, switches, a pot and battery holder. Works great. It has 4 memory positions, and is controlled by Morse commands on the paddles. Speeds from 6 to 60 on the pot. Works great in contests, and batteries last for years. Send a sase to Idiom Press at Box 683, Deerfield, Ill, 60015 for info.

--

* Pat Masterson D12-25 | KE2LJ@KC2FD *
* Grumman Data Systems | 516-346-6316. *
* Bethpage, NY 11746 | bat@gdstech.grumman.com *

Date: 16 Nov 93 02:59:48 GMT
From: amd!amdahl!JUTS!arl00@decwrl.dec.com
Subject: FCC Running in High Gear: Are VECs Also?
To: info-hams@ucsd.edu

In article <CGK6y5.Krn@mentor.cc.purdue.edu> blumb@sage.cc.purdue.edu (Bill Blum) writes:

>Well, I took the test on 10/3...

>and got my license today, 11/15. (Effective date 11/09).

>

>Sure beats the 12 week wait times I was reading about this summer while
>studying for the exams.

I've heard wildly divergent tales of late...turnaround times for initial licenses ranging from 30 to 90 days. I'm wondering if there's a big difference in turnaround times, depending on which VEC is handling the front end of the paperwork?

Anyone know?

Date: 16 Nov 1993 04:10:33 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!usenet.ins.cwru.edu!
news.ysu.edu!yfn.ysu.edu!al255@network.ucsd.edu
Subject: Finally passed my tests after 5 years!
To: info-hams@ucsd.edu

Have no idea why I am posting this but here it is.

5 years ago I got interested in ham radio since I got wind of a ham radio class being offered close by. It sounded cool and it was. So I studied the code and the material for the novice and tech written tests. I thought I knew the code ok and the instructor of the course N0JGB(at least that's what he was known as then) taught the others well enough. But around test time I passed both written tests with 90%+ scores and totally died a most gruesome and disgusting death on the code test despite studying it for months. But there was another test session later on that year so I studied the code some more took both writtens over(since a certain instructor LOST the copies of my earlier writtens) and again passed with 90%+ on both and did marginally better on the code test, but still died on it.

I kept studying on and off but eventually gave up the code since I am horrible at it. Of course about say 4-5 months later(i think) after my test completion certificate was void they passed the thing for no-code tech. But the real doing of it took a while longer for it to happen.

By the time I found the new test book for no-code tech I was relocated to a new area and had no idea where the ham radio people were. Tried the 2 meter band to see if I could learn anything from the 2 meter rag chewing crowd and as such locate the ham radio crowd. My efforts were rewarded by picking up a crystal clear reception of the local obnoxious overpowered country music station. So much for that.

Still later on I located a file on the usenet listing test sights. Just happened to list one in lansing michigan that was a short drive away. After getting the info for the test location I crammed the 2 days before the test and before reading the last half of the test questions I stopped over to see a friend figuring I could cram the last half later that night.

Well, a bit later after consuming massive amounts of booze, being dropped off at home I remembered I should study the last few questions. Nah, passed the material before 2 times, forget it. 10-12 hours after blacking out I woke up feeling extra perky from hangover effects I took off to the test location. The local hams are friendly enough and did not seem to object to having a living corpse take the ham test. Passed the novice material ok but missed passing the tech segment. I remembered the entire test question list from the test so I looked up the questions some weeks later. A .1% tolerance resistor ? What the ****!!!! Of course if the FCC was sane I would have passed that question and got the no-code right there.

Some weeks ago I went psycho and just plain memorized the entire tech question and answer list. And recently I passed the tech segment 23/25 then the general written 20/25 and then died on the advanced 15/50.

Suppose one day I'll study the advanced test book just to find out what the heck an L-Pi filter is and why or why not it is best for reducing harmonic radiation more than other filter system. :) I only know digital electronics. harmonics never came up when I studied those filters. :)

So in a few months I'll get my license after 5 long years of trying for it cool eh ? :)

Date: Fri, 19 Nov 1993 00:41:10 EDT
From: news.cerf.net!pagesat!olivea!spool.mu.edu!howland.reston.ans.net!
newsserver.jvnc.net!jvnc.net!Gerry_Jurrens%corbin.prs.k12.nj.us@network.ucsd.edu
Subject: FT727 Schematic
To: info-hams@ucsd.edu

Wilbert, ZL2BSJ. says: (of the Yaesu FT-727):

"Also, the Squelch is very slow to come off, and I keep losing the first part of the first frame received. Conclusion: a nice dual band radio, but no good for packet..."
^^^^^^^

Well, I use the '727 every day for packet and it works VERY well. As you point out, correctly, the squelch is "very" slow - solution? Leave the squelch WIDE OPEN as I do, and use the DCD on your TNC to set the noise threshold. Works VERY well! Of course, it took about a year of relentless retries and lost frames before my friend, Tom (K2PJ) came up with that very helpful solution!

Hope you try it....73,

Gerry Jurrens, N2GJ
Kingston, NJ

-----Princeton Regional Schools takes no responsibility for the accuracy or content of the above message.

Date: 15 Nov 93 16:38:46
From: koriel!male.EBay.Sun.COM!jethro.Corp.Sun.COM!exodus.Eng.Sun.COM!
appserv.Eng.Sun.COM!appserv!rfm@decwrl.dec.com
Subject: How did spark transmitters work (was Re: CW)
To: info-hams@ucsd.edu

In article <CGIu00.A9L@freenet.carleton.ca> aj467@Freenet.carleton.ca (Bill

Macpherson) writes:

[Describing a early method of generating CW]

> The whole concept was likely the father of the rotary spark gap,
>the expense of engineering the large condensers, coils, resistors and
>generators would have fallen outside the realm of an amateur (both in
>terms of cost and scale) as the spark generator was as high as a man, and
>the frequency was determined by the shaft RPM.

At the Lawrence Hall of Science in Berkeley they have the electromagnet Dr. Lawrence used to construct the first cyclotron sitting out front; it's about 9 feet tall, and was part of a commercial spark transmitter made surplus by the advent of tube transmitters. (BTW, Lawrence was a ham, and they have his spark rig on display inside.)

My question is, why did spark transmitters need big electromagnets? Were they basically big generators, generating EMF by rotating a coil through the magnetic field?

(Another fun thing on exhibit at the LHoS was Lawrence's letter to Henri Becquerel mentioning that he'd heard of some big French spark transmitting station closing down, and suggesting that HB ask them for their surplus magnets so he could build his own cyclotron...)

[Crossposted to .policy, where it started, and .misc, where it fits, with followups directed to .misc.]

Rich

--

Rich McAllister (rfm@eng.sun.com)

Date: 16 Nov 1993 15:01:11 GMT
From: news.larc.nasa.gov!draco.larc.nasa.gov!dgs@uunet.uu.net
Subject: Mods for Yaesu FT-530
To: info-hams@ucsd.edu

I am thinking of buying the Yaesu FT-530 dual-band hand held. Does anyone know of any modifications for this radio? In particular, I was wondering if the receive bandwidth could be increased like on some of the Icom handhelds.

Any help would be appreciated,

Thanks,

Dave Shively KC4HUM dgs@draco.larc.nasa.gov

Date: Thu, 18 Nov 1993 12:28:01 PST
From: news.cerf.net!sbelfield%electriciti.com@network.ucsd.edu
Subject: OSU Amateur Radio Club Meeting Tonight 11/3
To: info-hams@ucsd.edu

Hi. I am trying to contact Chris Holmes in Massachusetts, at Data General I think, and Jon Cassie at Ohio State. If anyone knows them (or an Internet address for them) please let me know. Thanks, Scott KD6FY
SBELFIELD@ELECTRICITI.COM or 71636.404@COMPUSERVE.COM

Date: Wed, 17 Nov 1993 22:21:33 GMT
From: nmt.edu!mimbres.cs.unm.edu!ncar!elroy.jpl.nasa.gov!swrinde!emory!news-feed-2.peachnet.edu!ukma!rsg1.er.usgs.gov!dgg.cr.usgs.gov!bodoh@network.ucsd.edu
Subject: Radio Shack frequency counter
To: info-hams@ucsd.edu

Now that the Radio Shack frequency counter has been out for a few months, how do people like them? I know that it lacks a hold button, but I recently saw a mod for that. I plan on putting it on my xmas list that my wife insists on, and this counter is tempting because of the price, 10% discount coupon, availability and LCD display. Some of the other brands may be more sensitive, but they are also more expensive and most have LED displays that are hard on batteries and difficult to read in sunshine. Do those who have them like them? Thanks...

BTW - My use of it would be for determining scanner frequencies, finding interference sources and general amateur use.

--
+++++
+ Tom Bodoh - Sr. systems software engineer, Hughes STX, N0YGT +
+ USGS/EROS Data Center, Sioux Falls, SD, USA 57198 (605) 594-6830 +
+ Internet; bodoh@dgg.cr.usgs.gov (152.61.192.66) +
+ "Welcome back my friends to the show that never ends!" EL&P +
+++++

Date: Tue, 16 Nov 93 22:59:30 EST
From: elroy.jpl.nasa.gov!swrinde!gatech!bloom-beacon.mit.edu!noc.near.net!news.delphi.com!usenet@decwrl.dec.com
Subject: Radio Shack HTs
To: info-hams@ucsd.edu

Ken, I've heard from several sources that the Radio Shack HT is made by Maxxon, but the basic design of it is derived from the older Icom 02AT, with several major redesigns. Apparently Tandy is (or did) paying Icom for the use of the Icom design.

Or so I've heard... --Leigh/KM6JE.

Date: Mon, 15 Nov 93 15:31:00 -0500
From: usc!sdd.hp.com!vixen.cso.uiuc.edu!howland.reston.ans.net!wupost!udel!news.intercon.com!psinntp!channel1!ken.smith@network.ucsd.edu
Subject: Radio Shack HTs
To: info-hams@ucsd.edu

To: GARY#KE4ZV.UUCP

GARY@KE4ZV.UUCP typed this about Re: Radio Shack HTs

G>>I have been told that it is made by Icom, but this was by an R.S.
G>>salesdroid, so I could be wrong.

G>Well they say "Made in Korea for Tandy Corp", so I don't think Icom
G>is involved. I heard they were made by the same company that makes
G>their scanners.

I was told that they are made by Maxon. (or is it Maxxon?)

Ken

CmpQwk #UNREG UNREGISTERED EVALUATION COPY

Date: Fri, 19 Nov 1993 00:16:58 GMT
From: pacbell.com!unet!loren!larson@decwrl.dec.com
To: info-hams@ucsd.edu

References <1993Nov17.034311.24091@ke4zv.atl.ga.us>,
<1993Nov18.034401.1913@mulvey.com>, <1993Nov18.143557.3937@ke4zv.atl.ga.us>
Subject : Re: Miss Manners in the Novice Sub-bands?

In article <1993Nov18.143557.3937@ke4zv.atl.ga.us> gary@ke4zv.atl.ga.us (Gary

Coffman) writes:

>Sure, absolutely, that's what I said. Read it again. If *neither*
>party were Novice/Tech+ then I think it's rude for them to occupy
>the tiny band segment allocated to N/T when they have plenty of
>alternative space available.

Last I checked, folks were objecting to CW in the phone segments as rude. This means that the Novice/Tech+ segments are 1/3 of all the available space on 40 and 15 meters. Granted, the 80 meter segment is a somewhat smaller percentage, but it seems you are trying to exile high speed CW to ever smaller parts of the band.

Remember, they may not really have other space available, given restrictions such as antenna bandwidths.

I suppose it is similarly rude for users of other digital modes, such as packet, to run them in the CW portions of the band, when they have other alternative space available?

Alan

End of Info-Hams Digest V93 #1364

